

IN THE CLAIMS:

Claims 1-4, 6 8-10, 12, 15-23, 25-30, 32, 33, 35-37, 39, 42 and 43 are currently pending in the application. Claims 1 and 27 have been amended herein. New claims 44 and 45 are added. This listing of claims will replace all prior versions and listings of claims in the application. Please enter these claims as amended.

Listing of Claims:

1. (Currently Amended) A method for producing mRNA encoding a *Plasmodium falciparum* apical membrane antigen-1 (AMA-1) ectodomain, or a functional part thereof, in a yeast cell, said method comprising:
providing said yeast cell with a nucleic acid encoding said ectodomain or functional part thereof selected from the group consisting of parts spanning from amino acid residue 25-442, 97-318, 97-442, and 97-545, wherein the encoding nucleic acid ~~consists of~~ comprises a nucleotide sequence as depicted in of FIG. 1 encoding the ectodomain or the functional part thereof, ~~or wherein the encoding nucleic acid consists of a sequence that comprises at least 90 percent homology to the corresponding sequence as depicted in FIG. 1,~~ and wherein at least one glycosylation site is removed from said *Plasmodium falciparum* AMA-1 ectodomain, and wherein said nucleic acid is modified to utilize said yeast cell's codon usage, and wherein said *Plasmodium falciparum* AMA-1 ectodomain exhibits specificity for mAb 4G2.
2. (Previously Presented) The method according to claim 1, further comprising expressing said nucleic acid in said yeast cell.
3. (Previously Presented) The method according to claim 2, further comprising purifying said *Plasmodium* AMA-1 ectodomain or functional part thereof.
4. (Previously presented) The method according to claim 1, wherein at least one putative yeast polyadenylation consensus sequence in the nucleic acid has been modified.

5. (Cancelled).
6. (Previously Presented) The method according to claim 1, wherein said mRNA encoding *Plasmodium* AMA-1 ectodomain belongs to the clade whose members express AMA-1 protein as an approximately 83 kDa protein.
7. (Cancelled).
8. (Previously Presented) The method according to claim 6, wherein the mRNA encoding *Plasmodium* AMA-1 ectodomain comprises mRNA encoding *Plasmodium falciparum* Vietnam-Oak Knoll strain ectodomain.
9. (Previously Presented) The method according to claim 1, wherein said yeast cell is *Pichia*.
10. (Previously Presented) The method according to claim 9, wherein said yeast cell is *Pichia pastoris*.
11. (Canceled).
12. (Withdrawn) The isolated and/or recombinant nucleic acid sequence of claim 11, wherein at least one putative yeast polyadenylation consensus sequence has been modified.
13. (Canceled).
14. (Canceled).
15. (Withdrawn) A nucleic acid sequence, said nucleic acid sequence being an AMA-1 specific nucleic acid sequence, capable of hybridizing to at least a functional part of a nucleic acid according to claim 11.

16. (Withdrawn) The nucleic acid sequence of claim 15, wherein said hybridization is under stringent conditions.

17. (Withdrawn) A nucleic acid sequence, which is an AMA-1 specific nucleic acid sequence, said nucleic acid sequence having at least 50 percent homology to the isolated and/or recombinant nucleic acid sequence of claim 11.

18. (Withdrawn) The nucleic acid sequence of claim 17, having at least 60 percent homology to said isolated and/or recombinant nucleic acid sequence.

19. (Withdrawn) The specific nucleic acid sequence of claim 17, having at least 75 percent homology to said isolated and/or recombinant nucleic acid sequence.

20. (Withdrawn) The nucleic acid sequence of claim 17, having at least 90 percent homology to said isolated and/or recombinant nucleic acid sequence.

21. (Withdrawn) The nucleic acid sequence of claim 11, wherein said Plasmodium belongs to the clade whose members express AMA-1 protein as an approximately 83 kDa protein.

22. (Withdrawn) The nucleic acid sequence of claim 11, wherein said Plasmodium comprises *Plasmodium falciparum*.

23. (Withdrawn) The nucleic acid of claim 22, wherein said Plasmodium is *Plasmodium falciparum* FVO.

24. (Canceled).

25. (Withdrawn) The nucleic acid sequence of claim 11, wherein said yeast is *Pichia*.

26. (Withdrawn) The nucleic acid sequence of claim 25, wherein said yeast is *Pichia pastoris*.

27. (Currently Amended) A process for producing a *Plasmodium falciparum* apical membrane antigen-1 (AMA-1) ectodomain or a functional part thereof, said method comprising: providing a yeast cell with an isolated or recombinant nucleic acid encoding *Plasmodium falciparum* AMA-1 ectodomain or a functional part thereof selected from the group consisting of parts spanning from amino acid residue 25-442, 97-318, 97-442, and 97-545 wherein the encoding nucleic acid ~~consists of~~ comprises a nucleotide sequence encoding the ectodomain or the functional part thereof as depicted in of FIG. 1, ~~or wherein said the encoding nucleic acid consists of a sequence that comprises at least 90 percent homology to the corresponding sequence as depicted in FIG. 1,~~ and wherein at least one glycosylation site is removed from said *Plasmodium falciparum* AMA-1 ectodomain, and wherein said nucleic acid is modified to utilize a yeast cell's codon usage, and wherein said *Plasmodium falciparum* AMA-1 ectodomain exhibits specificity for mAb 4G2; and collecting formed *Plasmodium falciparum* AMA-1 ectodomain or functional part thereof

28. (Previously Presented) The process of claim 27, further comprising purifying said formed *Plasmodium* AMA-1 ectodomain or functional part thereof.

29. (Previously Presented) The process of claim 27, wherein said yeast cell is *Pichia*.

30. (Previously Presented) The process of claim 29, wherein said yeast cell is *Pichia pastoris*.

31. (Canceled).

32. (Withdrawn) An isolated cell comprising the nucleic acid of claim 11.

33. (Withdrawn) The isolated cell of claim 32, further comprising a Plasmodium AMA-1 ectodomain or a functional part, derivative and/or analogue thereof.

34. (Canceled).

35. (Withdrawn) The vaccine of claim 34 for use in preventing malaria.

36. (Withdrawn) The vaccine of claim 34 together with a suitable expedient.

37. (Withdrawn) The vaccine of claim 35, wherein said malaria is caused by Plasmodium falciparum.

38. (Canceled).

39. (Withdrawn) The vaccine of claim 34, wherein the malaria comprises Plasmodium falciparum FVO.

40-41. (Canceled).

42. (Withdrawn) A method for, at least in part, providing prophylaxis against malaria, said method comprising administering the vaccine of claim 34 to a subject.

43. (Withdrawn) The method of claim 42, comprising administering to a subject slow release compositions comprising said vaccine.

44-45. (Canceled).

46. (New) A method for producing mRNA encoding a functional part of a *Plasmodium falciparum* apical membrane antigen-1 (AMA-1) ectodomain in a yeast cell, said method comprising:

providing said yeast cell with a nucleic acid encoding said functional part of said ectodomain selected from the group consisting of parts spanning from amino acid residue 25-442, 97-318, 97-442, and 97-545, wherein the encoding nucleic acid comprises the nucleotide sequence encoding the functional part thereof of FIG. 1, and wherein at least one glycosylation site is removed from said *Plasmodium falciparum* AMA-1 ectodomain, and wherein said nucleic acid is modified to utilize said yeast cell's codon usage, and wherein said *Plasmodium falciparum* AMA-1 ectodomain exhibits specificity for mAB4G2.

47. (New) A method for producing a functional part of a *Plasmodium falciparum* apical membrane antigen-1 (AMA-1) ectodomain, said method comprising:

providing said yeast cell with an isolated or recombinant nucleic acid encoding a functional part of a *Plasmodium falciparum* AMA-1 ectodomain selected from the group consisting of parts spanning from amino acid residue 25-442, 97-318, 97-442, and 97-545, wherein the encoding nucleic acid comprises the nucleotide sequence encoding the functional part thereof of FIG. 1, and wherein at least one glycosylation site is removed from said *Plasmodium falciparum* AMA-1 ectodomain, and wherein said nucleic acid is modified to utilize said yeast cell's codon usage, and wherein said *Plasmodium falciparum* AMA-1 ectodomain exhibits specificity for mAB4G2; and

collecting the formed functional part of *Plasmodium falciparum* AMA-1.